We claim:

     1. An image processing method of inputting image data with registration signals embedded therein, subjected to geometric transformation, and extracting registration

5   signals from said inputted image data to perform registration processing, comprising: a registration signal extracting step of extracting registration signals from said image data; a frequency property determining step of determining frequency properties of said image data; a geometric transformation identifying step of identifying geometric transformation to which said image data is subjected, using said extracted registration signals and

10   determination results of said determination in the frequency property determining step; and a geometric transforming step of performing inverse transformation of said identified geometric transformation.

     2. The image processing method according to claim 1, further comprising: a

15   frequency transforming step of transforming said image data into frequency components; and an inverse frequency transforming step of transforming said frequency components into spatial components.

     3. The image processing method according to claim 1, wherein in said frequency

20   property determining step, determination is made using frequency components of said image data.

     4. The image processing method according to claim 1, wherein in said frequency transforming step, Fourier transformation is performed, and conversion into amplitude

25   spectra of said frequency components is made.

     5. The image processing method according to claim 1, further comprising: a block dividing step of dividing said image data into at least one blocks; and a block synthesizing step of combining blocks divided by said block dividing step to reconstruct

30   the image.

6. The image processing method according to claim 1, wherein said geometric transformation is scaling.

5   7. An image processor for embedding registration signals in image data, comprising: means for detecting a feature of said image data; means for selecting a registration signal from several possible registration signals in accordance with said detected feature; and means for adding to said image data the registration signal so-selected.

10

8. An image processor for inputting image data with registration signals embedded therein, subjected to geometric transformation, and extracting registration signals from said inputted image data to perform registration processing, comprising: registration signal extracting means for extracting registration signals from said image

15   data; frequency property determining means for determining frequency properties of said image data; geometric transformation identifying means for identifying geometric transformation to which said image data is subjected, using said extracted registration signals and determination results of said determination by the frequency property determining means; and geometric transforming means for performing inverse

20   transformation of said identified geometric transformation.

9. A computer program product embodying a program for implementing an image processing method of embedding registration signals in image data, the program comprising: program codes for the step of detecting a feature of said image data; program

25   codes for a step of selecting one registration signal from several possible registration signals in accordance with said detected feature; and program codes for a step of adding to said image data the registration signal so-selected.

10. A computer program product embodying a program for implementing an image processing method of inputting image data with registration signals embedded therein, subjected to geometric transformation, and extracting registration signals from said inputted image data to perform registration processing, the program comprising:

5   program codes for a registration signal extracting step of extracting registration signals from said image data; program codes for a frequency property determining step of determining frequency properties of said image data; program codes for a geometric transformation identifying step of identifying geometric transformation to which said image data is subjected, using said extracted registration signals and determination results

10   of said determination in the frequency property determining step; and program codes for a geometric transforming step of performing inverse transformation of said identified geometric transformation.

11. A computer data signal embodied in a two dimensional pattern and used for

15   implementing an image processing method of inputting image data with registration signals embedded therein, subjected to geometric transformation, and extracting registration signals from said inputted image data to perform registration processing, comprising: code signals for use in a registration signal extracting step of extracting registration signals from said image data; code signals for use in a frequency property

20   determining step of determining frequency properties of said image data; code signals for use in a geometric transformation identifying step of identifying geometric transformation to which said image data is subjected, using said extracted registration signals and determination results of said determination in the frequency property determining step; and code signals for use in a geometric transforming step of performing

25   inverse transformation of said identified geometric transformation.

12. An image processing method of embedding a registration signal in image data, comprising: detecting a feature of said image data; providing a registration signal in correspondence with said detected feature; and adding said corresponding registration

30   signal to the image data.

13. The image processing method according to claim 12, further comprising: transforming said image data into frequency components; and inverse transforming said frequency components into spatial components.

5

14. The image processing method according to claim 13 wherein Fourier transformation is performed to transform said image data into amplitude spectra.

15. A signal processing method for determining a geometric transformation

10   applied to a media signal, the method comprising:

transforming the media signal into a frequency domain to produce frequency components of the media signal;

detecting an embedded signal in the frequency components;

based on the detecting, determining geometric transformation parameters defining

15   a geometric transformation of the media signal; and

using the geometric transformation parameters to transform the media signal.

16. The method of claim 15 wherein the frequency components are computed using a Fourier transform.

20

17. The method of claim 15 including pre-filtering the media signal to attenuate noise relative to the embedded signal.

18. The method of claim 15 including performing a log sampling of the media

25   signal.

19. The method of claim 18 including performing a log-log sampling of the media signal.

20. The method of claim 18 including performing a log-polar sampling of the media signal.

5